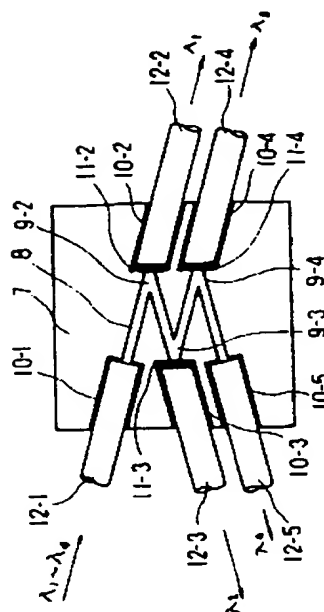


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 INVENTOR : NISHI NORIO;
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 TITLE : OPTICAL DEMULTIPLEXER



ABSTRACT : PURPOSE: To assemble easily the titled demultiplexer, and to make it small in size and highly stable by constituting the optical demultiplexer of an optical waveguide through an interference film, and an optical fiber.

CONSTITUTION: An optical waveguide 8 and optical fiber installing grooves 10-1,...10-5 following it are formed on a substrate 7, the end face of the optical waveguide 8 is exposed in the end part of the optical fiber installing groove, and interference films 11-2, 11-3 and 11-4 are formed on the end face of this optical waveguide, and coupled with an optical fiber inserted into the optical fiber installing groove. A light which has been made incident from an optical fiber 12-1 is led by the optical waveguide 8 and reaches the interference film 11-2 formed on the end face of a crossing part 9-2 of the optical waveguide. In accordance with a relation of a wavelength of the incident light and a transmission band characteristic of the interference film, the incident light is reflected by the interference film 11-2 and reaches the interference film 11-3, or transmits through the interference film 11-2 and reaches an optical fiber 12-2. Thereafter, in the same way, the light is demultiplexed successively by the wavelength of the incident light and the transmission wavelength characteristic of the interference film.

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